

EPODOC / EPO

PN - JP9196176 A 19970729
 TI - PISTON RING
 FI - F02F5/00&F ; F16J9/26&D ; C23C4/06 ; C23C4/12
 PA - NIPPON PISTON RING CO LTD
 IN - TAKAMURA HIROYUKI; ASAI HIDEHIRO
 AP - JP19960010371 19960124
 PR - JP19960010371 19960124
 DT - I
 - WPI / DERWENT

AN - 1997-432925 [40]
 TI - Piston ring for diesel engines of ships and automobiles -
 where at least the outer peripheral surface is coated with a
 combined hot spraying film by a high velocity oxygen flame
 process

AP - J09196176 In a piston ring, at least the outer peripheral
 surface is coated with a combined hot spraying film by a high
 velocity oxygen flame process.

- The combined film consists of an undercoat layer containing
 20-80 % Cr₃C₂ and the balance of Ni-Cr, and a top coat layer of
 Co- or Ni-based sliding surface dispersed with less than 30 wt%
 Cr₃C₂/Ni-Cr hard particles.

- USE - The piston ring is used for diesel engines of ships and
 automobiles.

- ADVANTAGE - The piston ring has high corrosion resistance and
 resistance for mate attacking.

- (Dwg.1/8)

IW - PISTON RING DIESEL ENGINE SHIP AUTOMOBILE OUTER PERIPHERAL
 SURFACE COATING COMBINATION HOT SPRAY FILM HIGH VELOCITY OXYGEN
 FLAME PROCESS

PN - SE516491 C2 20020122 DW200214 C23C4/06 000pp
 - JP9196176 A 19970729 DW199740 F16J9/26 005pp
 - SE9700162 A 19970725 DW199741 C23C4/06 000pp
 IC - C23C4/06 ; C23C4/12 ; F02F5/00 ; F16J9/26
 MC - M13-C
 DC - M13 Q52 Q65
 PA - (NPIS) NIPPON PISTON RING CO LTD
 I - ASAI H; TAKAMURA H
 AP - SE19970000162 19970121; JP19960010371 19960124; SE19970000162
 19970121
 PR - JP19960010371 19960124
 - PAJ / JPO

PN - JP9196176 A 19970729
 TI - PISTON RING
 AB - PROBLEM TO BE SOLVED: To provide a piston ring capable of
 being used in a marine diesel engine or an automobile diesel
 engine in which excellent corrosion resistance and mate
 attackability resistance are required.

- SOLUTION: A composite thermal sprayed coating C consisting of a
 first layer A as an undercoat having the composition consisting
 of 20-80% Cr₃C₂, and the balance i-Cr, and a second layer B as
 a top coat having the composition consisting of ≤30wt.% Cr₃C₂
 /Ni-Cr is dispersed as hard particles in the material of a
 sliding surface of cobalt radial or nickel radial mainly composed
 of Mo and Cr is formed on a base metal M of at least an outer
 circumferential sliding surface of a piston ring 10 through the
 high velocity oxygen flame spraying.

- F16J9/25 ;C23C4/06 ;C23C4/12 ;F02F5/00
- NIPPON PISTON RING CO LTD
- TAKAMURA HIROSHI;ASAI HIDEHIRO
- 19971128
- 199711
- JP19960010371 19960124

